REMARKS/ARGUMENTS

Claims 1-7, 9-20 and 22-26 are pending in the application. Claims 1, 3, 9, 10, 11, and 13 are amended, no claims are cancelled, and no claims are added. The amendments to the claims as indicated herein do not add any new matter to this application.

CLAIM REJECTIONS—35 U.S.C. § 103

Claims 1-7, 9-20 and 22-26 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent No. 6,324,533 ("*Agrawal*") in view of U.S. Patent No. 6,138,117 ("*Bayardo*"). This rejection is respectfully traversed.

It is respectfully submitted that Claims 1-7, 9-20, and 22-26 are patentable over *Agrawal* and *Bayardo* for at least the reasons provided hereinafter.

CLAIM 1

Claim 1, as amended, recites:

> "within a database server that supports a particular database language, parsing a database statement to detect within the database statement, a construct that extends the particular language,
> **wherein the construct identifies a function that counts and returns frequent itemsets given a cursor as input;**
> performing said frequent itemset operation as part of execution of the database statement to produce results; and
> storing the results in a computer-readable storage medium."
> (emphasis added)

At least the above-bolded portions of Claim 1 are not disclosed, taught, or suggested by *Agrawal* or *Bayardo*, either alone or in combination.

Claim 1 is directed towards an approach for performing a frequent itemset operation. According to the approach of Claim 1, a database server receives a database statement, the

database server detects a construct within the database statement with the construct counting frequent itemsets when given a cursor as input. There is no corresponding database statement or construct taught or disclosed within *Agrawal* or *Bayardo*.

Agrawal discloses a GenRules table function, which is explained as follows:

> A table function, GenRules, is used to generate all possible rules from a frequent itemset. The input to the function is a frequent itemset. For each itemset, it outputs tuples corresponding to rules with all non-empty proper subsets of the itemset in the consequent. The table function outputs tuples with k+3 attributes, T_item.sub.1, . . . , T_item.sub.k, T_support, T_ten, T_rulem). The output is joined with F to find the support of the antecedent and the confidence of the rule is calculated by taking the ratio of the support values. FIG. 6 illustrates the rule generation query process, while the following pseudo-code shows a typical implementation of this step.

Based on this description, it is clear that the GenRules table function (construct) does not "count and return frequent itemsets given a cursor as input."

Agrawal also discloses two other table functions: Gather and Comb-K. These table functions are described as follows:

> The data table T is scanned in the (tid, item) order and passed to the table function Gather. This table function collects all the items of a transaction (in other words, items of all tuples of T with the same tid) in memory and outputs a record for each transaction. Each such record consists of two attributes, the tid and item-list which is a collection of all its items in a VARCHAR or a BLOB. The output of Gather is passed to another table function Comb-K which returns all k-item combinations formed out of the items of a transaction. A record output by Comb-K has k attributes T_itm.sub.1, . . . , T_itm.sub.k, which can be directly used to probe into the C.sub.k table.

Based on this description, it is clear that the Gather and Comb-K table function (construct) do not "count and return frequent itemsets given a cursor as input."

Claim 1 clearly recites that the construct "counts and returns frequent itemsets given a cursor as input." Thus the only results of the recited construct are **frequent** itemsets and **not all**

candidate itemsets. Furthermore, the construct recited in Claim 1 is given a cursor as input and not a single candidate frequent itemset. Thus Claim 1 determines the frequent itemsets *from the cursor* and does not merely return associated information about an itemset. This further points the distinction that Claim 1 does *not* return all candidate itemsets that are input into the function, but only returns itemsets that are indeed frequent.

Consequently, it is respectfully submitted that, for at least the above reasons, *Agrawal* or *Bayardo*, either alone or in combination, do not disclose, teach, or suggest the above-bolded elements of Claim 1. As at least one element in Claim 1 is not disclosed, taught, or suggested by *Agrawal* or *Bayardo*, it is respectfully submitted that Claim 1 is patentable over the cited art and is in condition for allowance.

CLAIMS 2-7, 9-20, AND 22-26

Claims 2-7, 9-20, and 22-26 depend, either directly or indirectly, upon independent Claim 1. Therefore, these dependent claims also include the limitations of the independent claim upon with they depend. Thus, dependent Claims 2-7, 9-20, and 22-26 are patentable for at least those reasons given above with respect to Claim 1. In addition, each of Claims 2-7, 9-20, and 22-26 introduce one or more additional limitations that independently render it patentable. However, due to the fundamental differences already identified, to expedite the positive resolution of this case a separate discussion of those limitations is not included at this time, although the Applicants reserve the right to further point out the differences between the cited art and the novel features recited in the dependent claims.

CONCLUSION

For the reasons set forth above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

Please charge any shortages or credit any overages to Deposit Account No. 50-1302.

Respectfully submitted,

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Dated: 10/31/07

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